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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,449	03/29/2004	Pauline Maria Foster-Hamilton	0707-00342 - G00342/US	3169

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GKN DRIVELINE NORTH AMERICA, INC
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EXAMINER

DUNWOODY, AARON M

ART UNIT	PAPER NUMBER
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3679

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/812,449

Applicant(s)

FOSTER-HAMILTON ET AL.

Examiner

Aaron M Dunwoody

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-22 is/are allowed.
- 6) ☒ Claim(s) 1-11 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

No priority claimed.

Information Disclosure Statement

No information disclosure statement submitted.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 21, 63, 66. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 25, 27. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any

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amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-11 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 2702996, Davis.

In regards to claim 1, Davis discloses an improved boot for use in sealing a constant velocity joint and ball spline joint assembly, the boot (40) comprising:

a plurality of articulating convolutes (50);

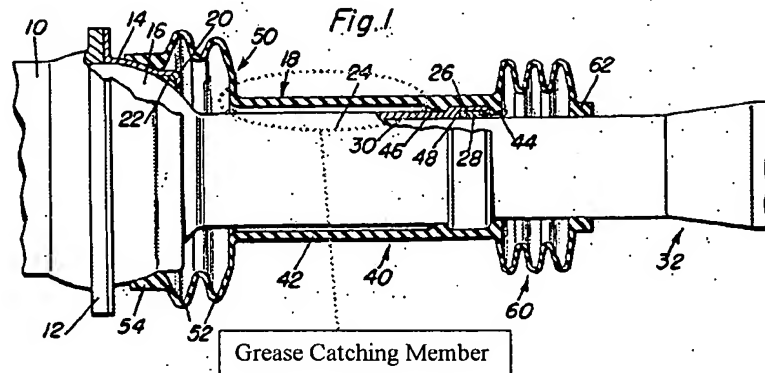
a grease catching member (46);

a first stabilizing member (see Figure 1 below) joining the plurality of articulating convolutes and the grease catching member;

a plurality of plunging convolutes (60); and

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a second stabilizing member (44, 48) joining the plurality of plunging convolutes and the grease catching member.



Note, the ball spline joint assembly is not part of the claimed invention.

In regards to claim 2, Davis discloses the articulating convolutes being adapted to accommodate joint articulation to an angle of at least 15 degrees.

In regards to claim 3, Davis discloses the plunging convolutes being adapted to accommodate joint plunge to at least 45 mm.

In regards to claim 4, Davis discloses the first stabilizing member being adapted to ride approximately 1 mm above an inner race of the ball spline joint.

In regards to claim 5, Davis discloses the second stabilizing member being adapted to ride approximately 1 mm above an outer race of the ball spline joint.

In regards to claim 6, Davis discloses the constant velocity joint being a high speed fixed joint.

In regards to claim 7, Davis discloses the boot being adapted to accommodate vehicle installation at an angle of at least 15 degrees.

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In regards to claim 8, Davis discloses the boot being adapted to accommodate joint operation up to approximately 7 degrees and 9000 revolutions per minute.

In regards to claim 9, Davis discloses the boot being adapted to accommodate compressive plunge of at least 15 mm and extension of 30 mm.

In regards to claim 10, Davis discloses the boot being adapted to accommodate joint plunge of, at least 45 mm.

In regards to claim 11, Davis discloses the boot being comprised of a thermoplastic material.

In regards to claim 23, Davis discloses an improved boot for use in sealing a high speed fixed joint and ball spline joint assembly, the boot comprising:

a plurality of articulating convolutes adapted to accommodate joint articulation of up to approximately 15 degrees;

a grease catching member;

a first stabilizing member joining and contiguous with the plurality of articulating convolutes and the grease catching member, the first stabilizing member adapted to ride approximately 1 mm above an inner race of the ball joint to provide stability at high speed;

a plurality of plunging convolutes adapted to accommodate joint plunge up to approximately 45 mm; and

a second stabilizing member joining and contiguous with the plurality of plunging convolutes and the grease catching member, the second stabilizing member adapted to

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ride approximately 1 mm above an outer race of the ball spline joint to provide additional stability.

Allowable Subject Matter

Claims 12-22 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose an improved joint assembly, comprising: a constant velocity joint; a ball spline joint affixable to the constant velocity joint, the ball spline joint having an inner race and an outer race; and a boot comprising a plurality of articulating convolutes and plunging convolutes; a grease catching member; first and second stabilizing members (claim 12).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because it illustrates the inventive concept of the invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron M Dunwoody whose telephone number is 703-306-3436. The examiner can normally be reached on 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P Stodola can be reached on 703-306-5771. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Aaron M Dunwoody
Examiner
Art Unit 3679

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